

VERSION WITH MARKINGS TO SHOW CHANGES MADE:

In the Claims (bracketed parts deleted and underline parts added):

1 1. (Amended) A vehicle disabling system comprising:
2 a vehicle control unit for positioning in a vehicle, the vehicle
3 control unit including a transceiver for transmitting and receiving
4 signals via free space, the transceiver [being adapted to receive]
5 including means for receiving an inquiry signal and [transmit]
6 transmitting an identification code upon the receipt of the inquiry
7 signal;
8 a central database station including memory for storing a
9 plurality of identification codes of vehicle control units, an
10 authorization code being associated in the memory with each of the
11 identification codes of the vehicle control units; and
12 a mobile law enforcement unit for positioning in a law
13 enforcement vehicle, the law enforcement unit including a
14 transceiver for transmitting and receiving signals via free space, the
15 law enforcement unit [being adapted to transmit] including means
16 for transmitting the inquiry signal to [a] the vehicle control unit,
17 the law enforcement unit [being adapted to receive] including means
18 for receiving an identification code from the vehicle control unit
19 and [transmit] transmitting the identification code to central
20 database station, the law enforcement unit [being adapted to
21 transmit] including means for transmitting the stop signal with the
22 authorization code via free space to the vehicle control unit upon
23 the receipt of the authorization code from the central database
24 station;
25 wherein the vehicle control unit includes means for connecting
26 to an ignition system of the vehicle, the vehicle control unit
27 including means for lowering an engine speed of the vehicle to an
28 idle condition upon the receipt by the transceiver of a stop signal

29 accompanied by an authorization code via free space within a
30 predetermined amount of time after receipt of the inquiry signal.

1 2. (Amended) The system of claim 1 wherein the vehicle
2 control unit [is adapted for connection] includes means for
3 connecting to at least one exterior light circuit of the vehicle such
4 that exterior lights of the vehicle are flashable by the vehicle
5 control unit upon receipt of the inquiry signal by the transceiver to
6 provide external visual confirmation of receipt of the inquiry signal
7 by the vehicle control unit.

1 Cancel claim 3.

1 4. (Amended) The system of claim 1 wherein the vehicle
2 control unit [is adapted] includes means for [connection] connecting
3 to a horn of the vehicle such that the vehicle control unit [is
4 adapted to actuate] actuates the horn of the vehicle upon the receipt
5 by the transceiver of a stop signal accompanied by an authorization
6 code via free space within a predetermined amount of time after
7 receipt of the inquiry signal.

1 5. (Pending) The system of claim 3 wherein the predetermined
2 amount of time is approximately 30 seconds.

1 6. (Pending) The system of claim 4 wherein the predetermined
2 amount of time is approximately 30 seconds.

1 7. (Amended) A vehicle disabling system comprising:
2 a vehicle control unit for positioning in a vehicle, the vehicle
3 control unit including a transceiver for transmitting and receiving
4 signals via free space, the transceiver [being adapted to receive]
5 including means for receiving an inquiry signal and [transmit]
6 transmitting an identification code upon the receipt of the inquiry
7 signal, the vehicle control unit being connectable to at least one
8 exterior light circuit of the vehicle such that exterior lights of the
9 vehicle are flashable by the vehicle control unit upon receipt of the
10 inquiry signal by the transceiver to provide external visual
11 confirmation of receipt of the inquiry signal by the vehicle control
12 unit, the vehicle control unit being connectable to an ignition
13 system of the vehicle [such that] , the vehicle control unit [is
14 adapted to lower] including means for lowering an engine speed of
15 the vehicle to an idle condition upon the receipt by the transceiver
16 of a stop signal accompanied by an authorization code via free space
17 within a predetermined amount of time after receipt of the inquiry
18 signal, the vehicle control unit [being connectable] includes means
19 for connecting to a horn of the vehicle such that the vehicle control
20 unit [is adapted to actuate] actuates the horn of the vehicle upon the
21 receipt by the transceiver of a stop signal accompanied by an
22 authorization code via free space within a predetermined amount of
23 time after receipt of the inquiry signal, wherein the predetermined
24 amount of time is approximately 30 seconds;

25 a central database station including memory for storing a
26 plurality of identification codes of vehicle control units, an
27 authorization code being associated in the memory with each of the
28 identification codes of the vehicle control units; and

29 a mobile law enforcement unit for positioning in a law
30 enforcement vehicle, the law enforcement unit including a

31 transceiver for transmitting and receiving signals via free space, the
32 law enforcement unit [being adapted to transmit] includes means for
33 transmitting the inquiry signal to [a] the vehicle control unit, the
34 law enforcement unit [being adapted to receive] includes means for
35 receiving an identification code from the vehicle control unit and
36 [transmit] transmitting the identification code to central database
37 station, the law enforcement unit [being adapted to transmit]
38 includes means for transmitting the stop signal with the
39 authorization code via free space to the vehicle control unit upon
40 the receipt of the authorization code from the central database
41 station.

1 8. (Amended) A method of disabling a vehicle comprising the
2 steps of:

3 providing a vehicle control unit for positioning in the vehicle,
4 the vehicle control unit including a transceiver for transmitting and
5 receiving signals via free space;

6 providing a central database station including memory for
7 storing a plurality of identification codes of vehicle control units,
8 the memory of the central database storing an authorization code
9 associated with each of the identification codes of the vehicle
10 control units;

11 providing a mobile law enforcement unit for positioning in a
12 law enforcement vehicle, the law enforcement unit including a
13 transceiver for transmitting and receiving signals via free space;

14 transmitting an inquiry signal from the law enforcement unit
15 to the vehicle control unit;

16 transmitting an identification code from the vehicle control
17 unit to the law enforcement unit;

18 transmitting the identification code from the law enforcement
19 unit to the central database station; [and]

20 matching an authorization code from the memory of the central
21 database station to the identification code; and
22 transmitting a stop signal from the law enforcement unit to the
23 vehicle control unit; and
24 lowering an engine speed of an engine of the vehicle by the
25 vehicle control unit upon the receipt by the vehicle control unit of
26 the stop signal so that the engine of the vehicle is put into an idle
27 condition.

1 9. (Pending) The method of claim 8 additionally comprising
2 transmitting the authorization code to the law enforcement unit.

1 10. (Amended) The method of claim 9 additionally comprising
2 transmitting the authorization code [and stop signal] from the law
3 enforcement unit to the vehicle control unit.

Cancel claim 11.

1 12. (Pending) The method of claim 10 additionally comprising
2 actuating a horn of the vehicle upon the receipt by the vehicle
3 control unit of the stop signal accompanied by the authorization
4 code.

1 13. (Pending) The method of claim 8 additionally comprising
2 flashing exterior lights of the vehicle by the vehicle control unit
3 upon receipt of the inquiry signal by the vehicle control unit to
4 provide external visual confirmation of receipt of the inquiry signal
5 by the vehicle control unit.

Please add the following claims:

1 14. (Added) The system of claim 1 wherein the vehicle
2 control unit includes means for transmitting a signal to a powertrain

3 control module of the vehicle, and the powertrain control module
4 includes means for causing an engine of the vehicle to return to idle
5 and causing a check engine light of the vehicle to illuminate when
6 the powertrain control module does not receive the signal from the
7 vehicle control unit.

In the Abstract (bracketed parts deleted and underline parts added):

In the paragraph beginning on page 22, line 5:

A vehicle disabling system [including] is disclosed that
includes a vehicle control unit for positioning in a vehicle [. The
vehicle control unit includes] with a transceiver for transmitting and
receiving signals [via free space. The transceiver is adapted] to
receive an inquiry signal and transmit an identification code upon
the receipt of the inquiry signal. A central database station
includes memory for storing a plurality of identification codes of
vehicle control units. An authorization code is associated [in the
memory with] each [of the] identification [codes of the vehicle
control units] code. A mobile law enforcement unit is [provided for
positioning] positionable in a law enforcement vehicle [. The law
enforcement unit] , and includes a transceiver for transmitting and
receiving signals [via free space. The law enforcement unit is
adapted] to transmit the inquiry signal to a vehicle control unit.
The law enforcement unit [is adapted to receive] receives an
identification code from the vehicle control unit and [transmit]
transmits the identification code to central database station. The
law enforcement unit [is adapted to transmit] transmits the stop
signal with the authorization code [via free space] to the vehicle
control unit upon [the receipt of] receiving the authorization code
from the central database station.

REMARKS

Reconsideration is respectfully requested.

The Examiner's rejections will be considered in the order of their occurrence in the Office Action.

Part 1 of the Office Action

The abstract has been objected to for the informalities noted in the Office Action.

The abstract has been amended in a manner believed to clarify any informalities in the language, particularly at the points identified in the Office Action.

Withdrawal of the objection is respectfully requested.

Part 2 of the Office Action

Claims 1 through 4 and 7 have been objected to for the informalities noted in the Office Action.

Claims 1 through 4 and 7 have been amended in a manner believed to clarify any informalities in the language.

Withdrawal of the objection to claims 1 through 4 and 7 is therefore respectfully requested.

Part 3 of the Office Action

Claims 1 and 7 have been rejected under 35 U.S.C. §112 (second paragraph) as being indefinite.

The above amendments to claims 1 and 7 are believed to clarify the requirements of the rejected claims, especially the particular points identified in the Office Action.

Withdrawal of the §112 rejection of claims 1 and 7 is therefore respectfully requested.

Parts 4 and 5 of the Office Action

Claims 1, 3 and 5 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Ryszard F. Szwed (US 5861799; hereinafter Szwed) in view of Fred Sterzer (US 4001822; hereinafter Sterzer).

Claim 3 has been cancelled.

Claims 2, 4 and 6 through 7 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Szwed and Fred Sterzer, and further in view of Pagliaroli et al (US 5276728; hereinafter Pagliaroli).

Claim 1, particularly as amended, requires "wherein the vehicle control unit includes means for connecting to an ignition system of the vehicle, the vehicle control unit including means for lowering an engine speed of the vehicle to an idle condition upon the receipt by the transceiver of a stop signal accompanied by an authorization code via free space within a predetermined amount of time after receipt of the inquiry signal". This feature of the claimed invention permits the vehicle to be brought to a stop, since most vehicles with, for example, an automatic transmission do not move (or slow any movement to a stop) when the engine is turning at the engine's idle speed. Significantly, since the engine is brought to an idle condition without killing the engine (such as by cutting off the fuel supply to the engine), the driver is able to maintain control of the movement of the vehicle as it slows because the power assist systems of the engine, such as the power steering and power brakes, are maintained. If the engine is shut off (such as by cutting off fuel to the engine), the power assist for the brakes and the steering is lost, and the driver struggles to maintain control of the movement of the vehicle. The ability of the driver to maintain control of the vehicle, until and after it has stopped moving, enhances the safety of the system and does not leave the

driver at the mercy of traffic and endangered.

The Office Action asserts that the Szwed disclosure teaches "that the vehicle control unit is adapted for connection to an ignition system of the vehicle such that the vehicle control unit is adapted to lower an engine speed of the vehicle to an idle condition..." and points to the Szwed disclosure at col. 4, lines 52 through 60. However, it is submitted that Szwed patent would not lead one of ordinary skill in the art to the requirements of claim 1, particularly as amended. Turning to the Szwed reference, it teaches:

Upon receipt of these codes, the law enforcement personnel turns on the remote control keypad 44, enters the first code via keypad section 48, enters the second code via keypad section 50, and depresses the button 52. A system override signal 14 is then transmitted from the transmitter 18 to a receiver 16. Once the circuit board 36 receives the signal 14 via receiver 16, the circuit board 36 applies current on conductors 32 so that the stopper 28 is forced into engagement (its closed position) with the fuel line 26. The engine will ultimately fail due to the lack of fuel and the car 10 will come to stop, allowing the law enforcement personnel to apprehend the culprits.

Szwed at col. 4, lines 47 through 59 (emphasis added).

Szwed also teaches, at col. 2, lines 59 through 62:

Still another object of the invention is to equip a car with a device that shuts off the fuel flow to the engine, preventing the improper operation of the car.

And teaches at col. 2, lines 62 through 65:

It is still another object of the invention is to equip a car with a device that shuts off the fuel flow to the engine via remote control, preventing the improper operation of the car.

And further teaches at col. 3, lines 28 through 31:

The law enforcement vehicle 12 carries a remote transmitter 18 that sends a signal 14 to a receiver 16 in the car 10 causing the fuel flow to the engine to cease, thereby disabling the car 10.

Nowhere in the Szwed disclosure does it teach that the engine of the vehicle is made to idle, and it is submitted that one of ordinary skill in the art, considering the Szwed disclosure, would only be led to a system in which the engine is completely shut off, which is inconsistent with contrary to permitting the engine to remain running in an idle condition. In light of the number of times that the Szwed disclosure makes the point that the engine is killed by the cut off of fuel, it is submitted that one of ordinary skill in the art would consider this to be a primary goal, and object, of the Szwed system. It is submitted that the claimed system which stops the forward motion of the car by putting at idle, but does not shut down the engine and the braking and steering assist systems, is more suitable than the Szwed system for avoiding an accident by the car being disabled, since the driver of a vehicle using the claimed system would retain control of the vital steering and braking systems.

Similarly, claim 7 requires, in part "the vehicle control unit being connectable to an ignition system of the vehicle, the vehicle control unit including means for lowering an engine speed of the vehicle to an idle condition upon the receipt by the transceiver of a stop signal accompanied by an authorization code via free space within a predetermined amount of time after receipt of the inquiry signal".

It is therefore submitted that the prior art, and especially the allegedly obvious combination of Szwed, Fred Sterzer, and Pagliaroli et al relied upon in the rejection set forth in the Office Action, would not lead one skilled in the art to the applicant's invention as required by claims 1 and 7, especially with the requirements set forth above, and therefore it is submitted that claim 1 is allowable over the prior art. Further, claims 2, and 4

through 6, which depend from claim 1, also include the requirements discussed above and therefore are also submitted to be in condition for allowance.

Withdrawal of the §103(a) rejections of claims 1, 2, and 4 through 7 is therefore respectfully requested.

Parts 6 and 7 of the Office Action

Claims 8 through 11 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Ryszard F. Szwed (US 5861799; hereinafter Szwed) in view of Fred Sterzer (US 4001822; hereinafter Sterzer).

Claims 12 and 13 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Szwed and Fred Sterzer, and further in view of Pagliaroli et al (US 5276728; hereinafter Pagliaroli).

Claim 11 has been cancelled.

Claim 8, particularly as amended, requires “transmitting a stop signal from the law enforcement unit to the vehicle control unit” and “lowering an engine speed of an engine of the vehicle by the vehicle control unit upon the receipt by the vehicle control unit of the stop signal so that the engine of the vehicle is put into an idle condition”.

This requirement of claim 8 is similar to the requirement of claim 1 discussed above, and for the reasons set forth above, claim 8, as well as claims 9, 10, 12, and 13 are submitted to be in condition for allowance.

Withdrawal of the §103(a) rejections of claims 8 through 10 and 12 through 13 is therefore respectfully requested.

CONCLUSION

In light of the foregoing amendments and remarks, early reconsideration and allowance of this application are most courteously solicited.

Respectfully submitted,



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